

# Princeton, NJ

**Verizon Wireless Network**  
**February 9, 2022**



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# Why are we expanding our Network?

## Why are we expanding the wireless network?

More people than ever before rely on wireless connections to manage their lives and businesses.

Verizon is expanding its wireless network to meet the growing demands of today and tomorrow.

But it takes time.



An estimated 240 million calls are made to 9-1-1 in the U.S. each year.

In many areas, 80% or more are from wireless devices.



The average North American smartphone user will consume **48 GB** of data per month in **2023**, up from just **5.2 GB** per month in **2016** and **7.1 GB** per month in **2017**.<sup>1</sup>



**Of American homes are wireless only.**<sup>2</sup>



In North America, the average household has **13 connected devices** with smartphones outnumbering tablets **6 to 1**.<sup>3</sup>

# Comparing the Gs

What's the difference between 5G and the other Gs?

## 1G

### Voice

We first talk without wires - on the move, with analog technology.

## 2G

### SMS

SMS (text) messaging debuts bringing us a new way to chat, creating a new language to chat with.

## 3G

### Data & Apps

We begin sharing snapshots of our lives by sending images thanks to higher data transfers.

## 4G

### Video & Speed

Video calls and new businesses are possible with wireless internet on our smart devices.

## 5G

### Transformation

With 5G, the possibilities are limitless. The low latency, high bandwidth combination will enable advancements in technology such as augmented and virtual reality, autonomous cars and connected cities.

5G gives us massive amounts of data transfer (due to the bandwidth of the spectrum) with very low latency (delay or lag time, in layman's terms).

From wireless home internet to AR/VR to mobile gaming and more, 5G will change how we live, learn, work and play.

**5G<sup>✓</sup>**  
**built**  
**right**

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## Different locations require different solutions.

**Verizon uses a balanced approach to engineering the best possible network given the local community's needs.**

Traditional, or macro cell sites, are most often the best choice for meeting coverage and capacity needs. Macro sites are traditional cell sites or towers that provide coverage to a broad area, up to several miles.

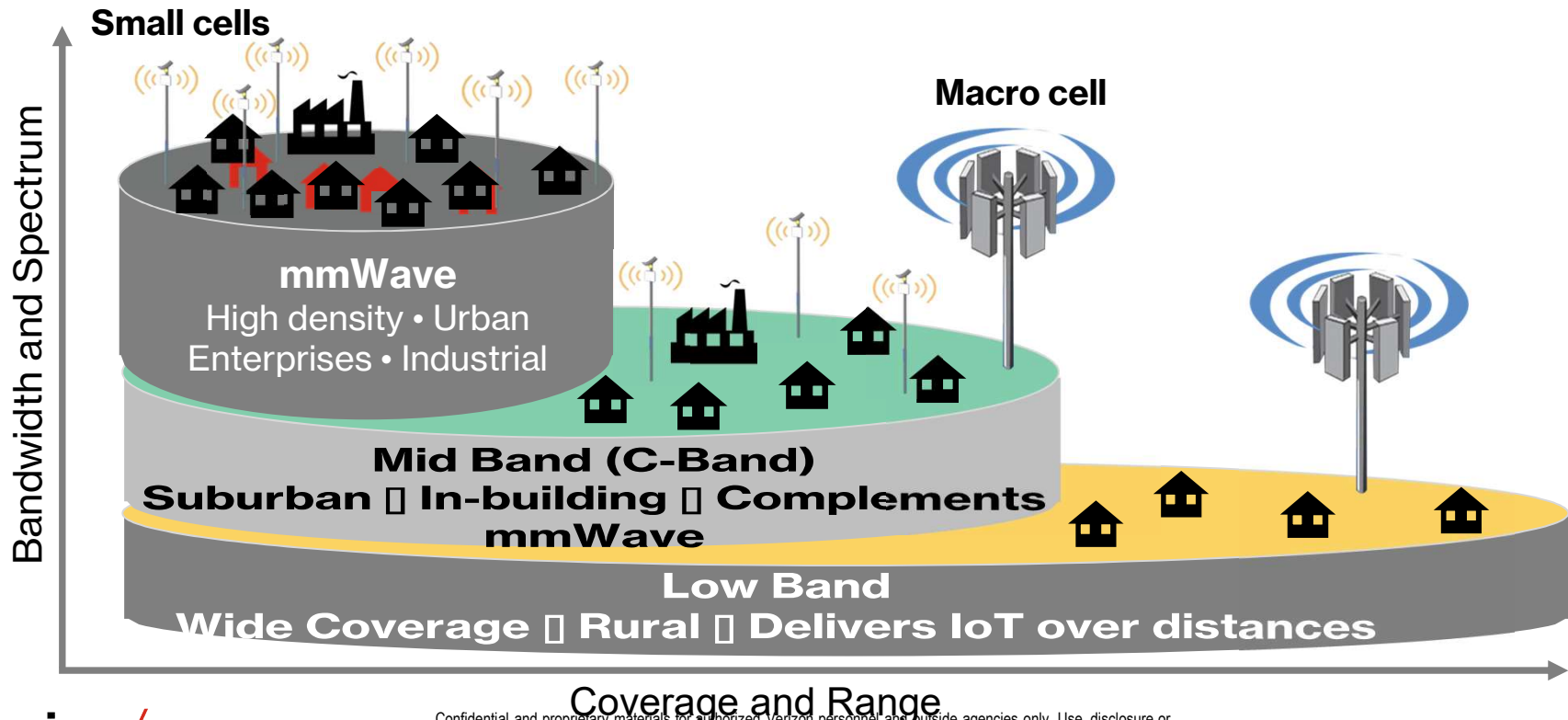


Small cells are just like the name implies – short range cell sites used to complement macro cell towers in a smaller geographic area ranging from a few hundred feet to upwards of 1,000 feet. These lower power antennas enhance capacity in high traffic areas, dense urban areas, suburban neighborhoods, and more. Small cells use small radios and a single antenna placed on existing structures including utility poles and street lights.



# Critical Technologies for 5G Deployment

(Fiber, Spectrum, Pole Assets, & Power)





# Verizon offers a comprehensive set of solutions.



## Lighting



- Intelligent Lighting



## Traffic & Transportation



- Intelligent Traffic Management
- Traffic Data Services
- Intersection Safety Analytics
- Parking Optimization



## Public safety



- Intelligent Video
- Real-Time Response System
- Evidence Management\*



## Connected Communities



- Digital Kiosks \*\*
- Public Wi-Fi



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## Light pole examples:



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## Wood pole example:

Existing



Proposed





